AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1.(original) Method for calculating changes in movement of the heart, e.g. related to ischemia, from a signal describing the acceleration of the heart wall, which is recorded by a motion sensor fastened to a selected position. on the surface of an active heart, by detecting patterns in said recorded signal that deviate from the pattern of normal activity, wherein said sensor registers the movements of the heart in this position in three directions.

2.(original) Method according to claim 1, wherein the method is performed post operatively in connection with a bypass operation.

3.(original) Method according to claim 1, wherein the position is selected as a central point of that part of the heart muscle which after an operation receives blood from the revascularised coronary artery.

4.(original) Method according to claim 1, wherein the motion sensor is designed by means of its dimensions and fastening devices to be removable from the position without requiring surgical intervention.

5.(original) Method according to claim 1, wherein the motion sensor comprises an accelerometer that is sensitive to acceleration in three directions.

6.(original) Method according to claim 1, wherein the motion sensor comprises a gyroscope for measuring rotary movement at the point of attachment of the sensor.

7.(original) Method according to claim 1, wherein the registered movement is transmitted to a calculation unit located externally of the patient for performing said analysis.

8.(original) Method according to claim 1, wherein the motion sensor is incorporated into a temporary pacemaker electrode.

9.(original) A motion sensor for registering the movements of a heart wall, which sensor is a sensor with a sensitivity in three directions and is provided with external material that does not cause reactions in biological material and devices for fasting to a selected position on the surface of the heart, which sensor furthermore comprises a signal conductor for transmitting registered information to a calculation unit located externally of the patient.

10.(original) A motion sensor for registering the movements of a heart, which sensor is a motion sensor with a sensitivity in three directions of at least 600mV/g within a frequency range of 200Hz (band width) with a maximum amplitude of 2.5V, has dimensions of less than 1.5x1.5x4mm and is provided with an external material that does not cause reactions in biological material, and devices for fastening to a selected position on the surface of the heart, which sensor furthermore comprises a signal conductor for transmitting registered information to a calculation unit located externally of the patient.

11.(currently amended) A motion sensor according to Claim 9~~ or 10~~, c h a r a c t e r i s e d i n that the dimensions of the sensor are less than 1x1x2mm.

12.(currently amended) The motion sensor according to ~~any of the Claims 9 to 11~~Claim 9, c h a r a c t e r i s e d i n that the sensor is integrated into a temporary pacemaker electrode.

13.(currently amended) A motion sensor according to ~~any of the Claims 9 to 12~~Claim 9, c h a r a c t e r i s e d i n that it comprises an accelerometer having three directions of sensitivity.

14.(currently amended) A motion sensor according to ~~any of the claims Claim 9 to 13~~Claim 9, c h a r a c t e r i s e d i n that it comprises a gyroscope for measuring rotary movement about at least one axis at the selected point.

15.(currently amended) A system for detecting changes in the movement of the heart, e.g. related to ischemia, comprising at least one motion sensor according to ~~any of the Claims 9 to 14~~Claim 9, where the sensor is designed to be fastened to the surface of a heart and where the sensor is designed to emit signals that reflect the heart activity to a calculation unit, said calculation unit being adapted to analyze the registered movements and detecting changes in the pattern of the movements of the heart in the position of the sensor.

16.(original) A system according to Claim 15, c h a r a ct e r i s e d s e d i n that it further includes biosensors that integrated into the accelerometer or fixed to a pacemaker electrode in order to emit signals that are characteristic to the heart activity.

17.(currently amended) A system according to Claim 15~~ or 16~~, c h a r a c t e r i s e d i n that it further includes an amplifier and a calculation unit designed to amplify and calculate the signals, and a device for indicating deviation upon comparison.

18.(original) A system according to Claim 17, c h a r a c t e r i s e d i n that the calculation unit is expected to use fast Fourier transform for determining the frequency distribution.

19.(original) A system according to Claim 17, c h a r a c t e r i s e d i n that the calculation unit determines the frequency distribution of the signals, and that these are compared with a pre-set standard distribution.

20.(original) A system according to Claim 17, c h a r a c t e r i s e d i n that the pre-set standard distribution employed is the frequency distribution calculated immediately after insertion of the sensor.

21.(original) A system according to Claim 20, c h a r a c t e r i s e d i n that it comprises a device for indicating deviation from predetermined values, comprising an alarm transmitter designed to emit an alarm signal when the deviation from said standard distribution exceeds a certain level.

22.(original) A system according to Claim 15, c h a r a c t e r i s e d i n that the motion sensor is incorporated into a temporary pacemaker electrode.